



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

647.1610

Job Sheet 169381



Part No: 647.1610

Job Qty: 6 ea

Part Name: Wiper Deflector Fwd



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/8/17

Job Tracking No:

Due Date: 1/16/18

Created By: Mario Poulin

Type: SOLD

Description:

Note: DWG REV A SHEET 2 IPP REV:A NEW ISSUE 12/11/01 JFS VERIFY BY: JLM IPP REV:B 13.09.03 now prime at ATG DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	6 Ea		1/15/18	0.00	0.00	Start Up Machining-1		SL 18/01/07
100	Bandsaw	6 pcs		1/15/18	0.00	0.01	Bandsaw1		SL 18/01/07
110	CNC Vertical Machining	6 pcs		1/15/18	0.00	10.14	HAAS1-1		SL 18/01/08
120	QC	6 pcs		1/15/18	0.00	0.00	QC2 Machining-1		SL 18/01/08
130	QC	6 pcs		1/15/18	0.00	0.00	QC8 Machining-1		SL 18/01/08
131	HandFinish	6 pcs		1/16/18	0.00	0.58	HandFinish4		
140	Outsource	6 pcs		1/16/18	0.00	0.00	Outsource4		AT 18/02/07
150	Packaging	6 pcs		1/16/18	0.00	0.00	Packaging2		AT 18/02/07
155	QC	6 pcs		1/16/18	0.00	0.00	QC5		38
180	Packaging	6 pcs		1/16/18	0.00	0.00	Packaging3-1		9-80
190	QC21-SA	6 Ea		1/16/18	0.00	0.00	QC21		DAG 21

Part Op 100 - Cut Blank at 6.750"

Descriptions: 110 - 1-Machine per folio FB143 DWG REV: FOLIO REV: 2- deburr and break all sharp edges

120 - QC2- Inspect parts off machine FAI/FAIB

130 - QC8- Inspect parts - second check

131 - CLEAN AND REMOVE ALL PART MARKING

140 - Outsource process-Anodize per QSI017 4.1.10.1 Issue P/O to ATG : 1- Black Anodize as per Dwg, SEE NOTE #3 2- PRIME AS PER DWG, SEE NOTE #3 Certification of Conformity is required

150 - Receive & Inspect for Damage & Mat'l Certs

155 - QC5- Inspect part completeness to step on W/O

180 - Identify as per dwg & Stock Location: ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

190 - QC21- Final Inspection - Work Order Release

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M7075T6S1.750X2.250	3	39	0	0

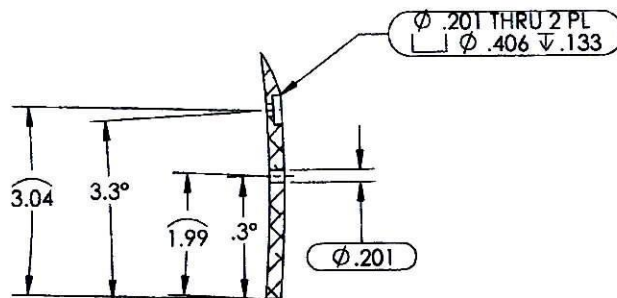
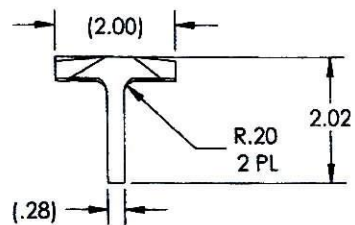
Part Specifications

Specifications could not be found.

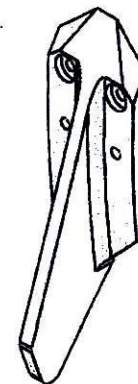
Plex 12/8/17 1:22 PM dart.poulin.mario

FM 138497 = 2.82' → 5029803
60173810675 Left over

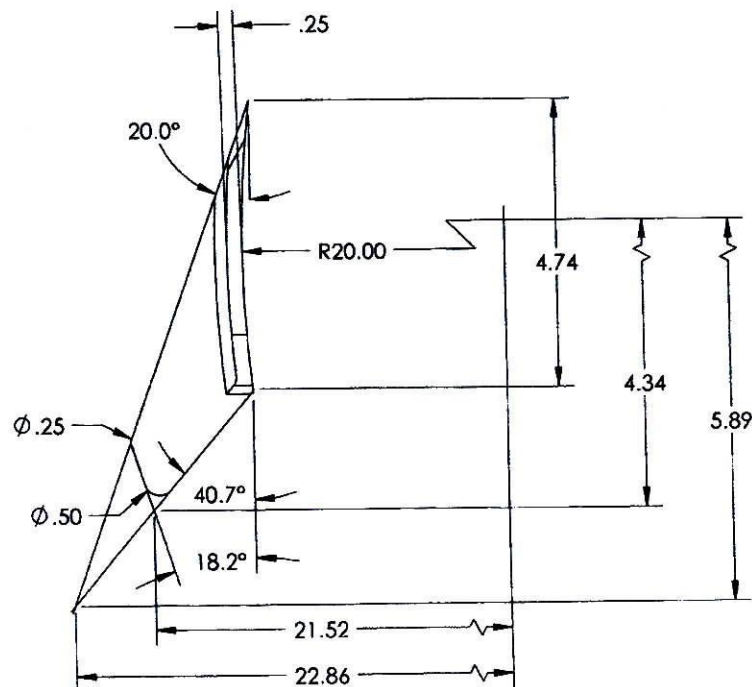
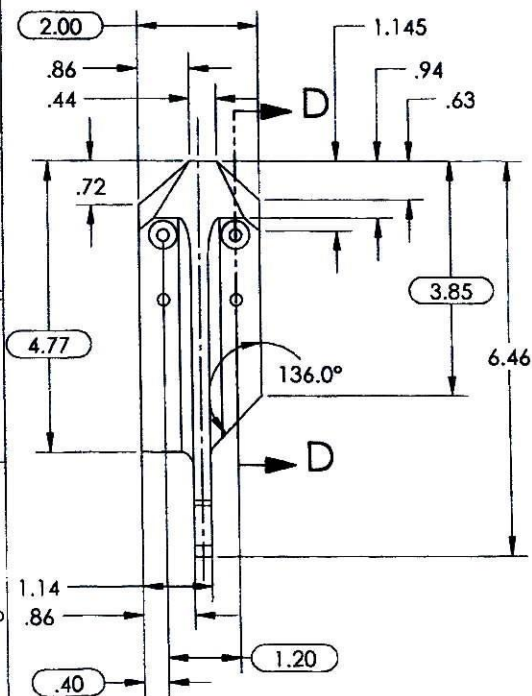
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SECTION D-D



647.1610



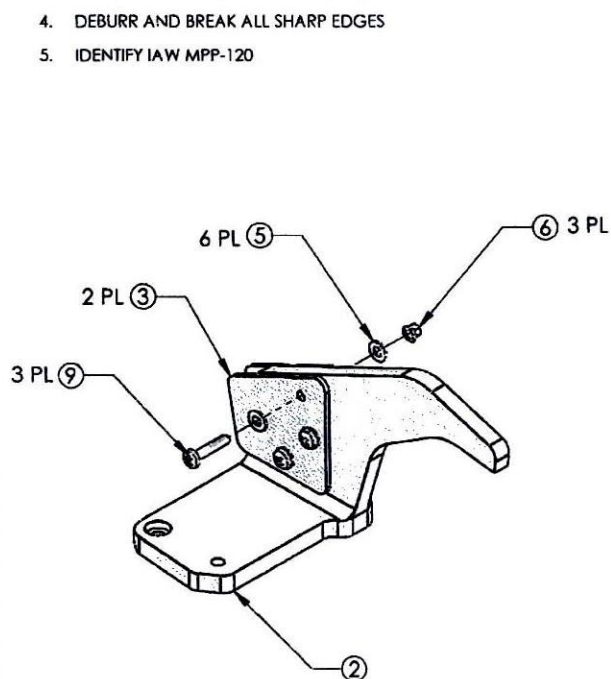
ORIGINAL DATE: 06-10-04		APICAL INDUSTRIES	
DRAWN BY: J. GARDNER	CHECKED BY: P. BRAYO	2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL: P. BRAYO		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CONTRACT NO.		WIPER DEFLECTOR ASSY	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 1. FRACTIONS: ±.01 2. DECIMALS: ±.005 3. ANGLES: ±.5°		SIZE: B	REV: A
		SCALE: NONE	SHEET 2 OF 6

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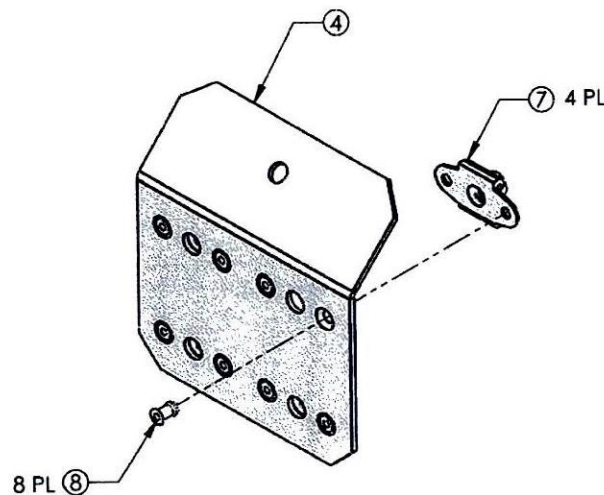
NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 AMS-QQ-A-250/12
- 2 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4
- 3 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
4. DEBURR AND BREAK ALL SHARP EDGES
5. IDENTIFY IAW MPP-120

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
1	LAST PROTOTYPED REVISION PER		NYC
2	INITIAL RELEASE	06/10/09	* BRAVO
3	UNINCORPORATED ECN 04229	08/29/13	* BRAVO



647.1601 SHOWN EXPLODED



647.1602 SHOWN EXPLODED

UNINCORPORATED ECN(s)

04229

QTY	3	9	601.2989	SCREW	MS27039-0812	
8	8	601.2980	NUTPLATE RIVET	CCR264SS-3-04		
4	7	601.1900	NUTPLATE	MS21059-3		
3	6	601.2973	LOCKNUT	MS21042-08		
6	5	601.2764	WASHER	NAS1149FMS32P		
1	4	647.1613	DOUBLER		2	3
2	3	647.1612	SPLICE PLATE		2	3
1	2	647.1611	WIPER DEFLECTOR, AFT		1	3
	1	647.1610	WIPER DEFLECTOR, FWD		1	3
X		647.1602	DOUBLER ASSY			
X		647.1601	WIPER DEFLECTOR ASSY, AFT			
1602	1601	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

PARTS LIST			
QTY	ORIGINAL DATE	647.1601	06-10-09
NEXT ASSY (S)	DRAWN BY	J. GARDNER	P. BRAVO
647.1300	DRAWING APPROVAL	P. BRAVO	06-10-09
	CONTRACT NO.		
	UNLESS OTHERWISE SPECIFIED		
	DIMENSIONS ARE IN INCHES		
	TOLERANCES ARE		
	7 PLACE DECIMALS ± .01		
	3 PLACE DECIMALS ± .005		
	ANGLES ± .5°		
SIZE	CAGE CODE	DWG. NO.	REV.
B	07M26	647.1600	A
SCALE	NONE	SHEET	1 OF 6

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

WIPER DEFLECTOR ASSY



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038743

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO038743

PO Date: 1/8/18

Due Date: 2/1/18

Purchase Order
Revision:

Revision Date:

Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments:

JAN 23 2018

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	166820	D4838-1	Upper Cutter Body, LH Issue P/O: _____ ATG, Hard Black Anodize and Prime as per Dwg D4838-1 Rev. A	Firmed	2/1/18	10 pcs	0 pcs	10 pcs	\$11.61/pcs	\$116.10
2	169613	D4703-043	Lock Pin Base Issue P/O to ATG: _____ HARD ANODIZE COLOR BLACK, As Per Dwg D4703	Firmed	2/1/18	4 pcs	0 pcs	4 pcs	\$4.06/pcs	\$16.24
3	168229	646.3313	Upper Guide Issue P/O to ATG: _____ Hard Anodize Color Black and Prime as per DWG 646.3300	Firmed	2/1/18	6 pcs	0 pcs	6 pcs	\$14.46/pcs	\$86.76
4	168224	646.3210	Support Issue P/O to ATG: _____ 1- Hard Anodize Color Black and Prime as per Dwg 646.3200	Firmed	2/1/18	6 pcs	0 pcs	6 pcs	\$15.71/pcs	\$94.26
5	168265	646.9710	Body Issue P/O to ATG: _____ Hard Black Anodize Color Black and Prime as per Dwg 646.9700	Firmed	2/1/18	12 pcs	0 pcs	12 pcs	\$15.86/pcs	\$190.32
6	165649	646.9811	Upper Deflector Issue P/O to ATG: _____ HARD ANODIZE COLOR BLACK, PRIME AS PER DWG 646.9800 REV. A	Firmed	2/1/18	16 pcs	0 pcs	16 pcs	\$33.96/pcs	\$543.36
7	169180	649.5010	Deflector Issue P/O to ATG: _____ HARD ANODIZE COLOR BLACK, AND PRIME AS PER DWG 649.5000 REV. D	Firmed	2/1/18	5 pcs	0 pcs	5 pcs	\$35.36/pcs	\$176.80
8	169184	649.5214	Bracket Issue P/O to ATG: _____ Hard Anodize Color Black and Prime as per Dwg 649.5200	Firmed	2/1/18	5 pcs	0 pcs	5 pcs	\$10.36/pcs	\$51.80
9	169748	650.9201		Firmed	2/1/18	20 pcs	0 pcs	20 pcs	\$7.96/pcs	\$159.20

JAN 24 2018



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K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO038743

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
10	169630	D4842-1	Eyelet Bracket Assembly Issue P/O to ATG : _____ Hard Anodize, Color Black and Prime as per Dwg 650.9200	Firmed	2/1/18	8 pcs	0 pcs	8 pcs	\$13.41/pcs	\$107.28
			Lower Cutter Deflector Outsource process- Issue P/O to ATG : _____ HARD ANODIZE COLOR BLACK, PRIME AS PER DWG D4842				8x		18/02/02	
11	169388	647.7819	Cross Bracket Fwd Issue P/O to ATG : _____ HARD ANODIZE COLOR BLACK, AND PRIME AS PER DWG 647.7819	Firmed	2/1/18	10 pcs	0 pcs	10 pcs	\$12.61/pcs	\$126.10
12	168245	646.3715	Strut Doubler Issue P/O to ATG : _____ Hard Anodize, Color Black and Prime as per Dwg 646.3700	Firmed	2/1/18	10 pcs	0 pcs	10 pcs	\$7.61/pcs	\$76.10
							10x		AT 18/02/07	
13	168267	646.9712	Body Issue P/O to ATG : _____ Hard Anodize, Color Black and Prime as per Dwg 646.9700	Firmed	2/1/18	6 pcs	0 pcs	6 pcs	\$15.86/pcs	\$95.16
							6x		18/02/02	
14	168268	646.9713	Body Issue P/O to ATG : _____ Anodize, Color Black, Prime as per Dwg 646.9700	Firmed	2/1/18	5 pcs	0 pcs	5 pcs	\$8.86/pcs	\$44.30
							5x		AT 18/02/07	
15	169381	647.1610	Wiper Deflector Fwd Issue P/O to ATG : _____ 1- Hard Anodize, Color Black and Prime as per Dwg, 647.1600	Firmed	2/1/18	6 pcs	0 pcs	6 pcs	\$12.06/pcs	\$72.36
							6x		AT 18/02/07	
16	169485	647.7612	Breakaway Tip Issue P/O to ATG : _____ Hard Anodize, Color Black and Prime as Per Dwg 647.7600	Firmed	2/1/18	6 pcs	0 pcs	6 pcs	\$12.06/pcs	\$72.36
							6x		AT 18/02/07	
17	166816	D4823-1	Upper Cutter Deflector Issue P/O to ATG : _____ Hard Anodize, Color Black and Prime as per Dwg D4823	Firmed	2/1/18	12 pcs	0 pcs	12 pcs	\$12.51/pcs	\$150.12
							12x		AT 18/02/07	
Grand Total:									\$2,178.62	

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914595

Date: 06-Feb-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
5 ea	Part: 646.9713 Body Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Job: 22360	Rev: D PO: PO038743	Line: 14
6 ea	Part: 647.1610 Wiper Deflector Fwd Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22361	Rev: A PO: PO038743	Line: 15
6 ea	Part: 647.7612 Breakaway Tip Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (.1 - .2 mils) per drawing. Job: 22362	Rev: NC PO: PO038743	Line: 16
12 ea	Part: D4823-1 Upper Cutter Deflector Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (.1 - .2 mils) per drawing. Job: 22363	Rev: A PO: PO038743	Line: 17
CERTIFICATE OF CONFORMANCE A.T.G. Industries Inc. certifies that all items in this shipment conform to the requirements. Date: 6/2/18 Certified Signature: [Signature]			
Made in Canada.			



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914595

Date: 06-Feb-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms	Ship Via								
<table border="1"><thead><tr><th>Quantity</th><th>Description</th></tr></thead><tbody><tr><td></td><td>Receiver Signature: _____</td></tr><tr><td></td><td>A.T.G. Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited.</td></tr><tr><td></td><td>Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.</td></tr></tbody></table>		Quantity	Description		Receiver Signature: _____		A.T.G. Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited.		Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.
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	Receiver Signature: _____								
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Made in Canada